PATENT ABSTRACTS

[File 347] JAPIO Dec 1976-2007/Oct(Updated 080129)

[File 350] Derwent WPIX 1963-2008/UD=200813

; d s

Set	Items	Postings	Description
S1	11299	43234	S (TAYLOR OR MACLAURIN OR CYCLIC)(3N)(SERIES OR EQUATION? ? OR FORMULA? ? OR LIMIT OR POLYNOMIAL? ?)
S2	55789	204158	S SIN OR SINE OR COS OR COSINE OR CO()SINE OR (TRIG OR TRIGONOMETR? OR CIRCULAR)(2N)(FUNCTION? ? OR VALUE? ?)
S3	14318	173199	S (LOOKUP? OR LOOK???()UP)(3N)TABLE? ?
S4	367	2555	S ("NOT" OR T OR WITHOUT)(2N)S3
S5	1	70	S S1 AND S2 AND S4
S6	61	672	S S1 AND S2
S7	52	581	S S6 NOT AD=20031213:20080310/PR
S8	1	68	S S7 AND FOURIER()TRANSFORM?
S9	0	0	S S8 NOT S5
S10	3733	16608	S S2(3N)(OBTAIN??? OR DERIV??? OR DERIVATION OR FIND??? OR CALCULAT??? OR DETERMIN??? OR DETERMINATION)
S11	7	126	S S10 AND S1
S12	6	52	S S11 NOT S5
S13	3	99	S (FORMULA? ? OR EQUATION? ?) AND S2 AND S4
S14	2	60	S S13 NOT S11

[** your application**]

5/5/1 (Item 1 from file: 350) Links
Fulltext available through: Order File History
Derwent WPIX

0015116567 & & *Drawing available*
WPI Acc no: 2005-466058/200547
XRPX Acc No: N2005-378378
Function arithmetic method for radio astronomy field, involves executing cyclic equation in sequence from higher order terms to lower order terms of Taylor series equation to derive sine function of angle information
Patent Assignee: FUJITSU LTD (FUIT)
Inventor: MORITA N; NAKAZURU T; OKUTANI S

Patent Family (2 patents, 2 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050131975	A1	20050616	US 2004823570	A	20040414	200547	B
JP 2005174077	A	20050630	JP 2003414688	A	20031212	200547	E

Priority Applications (no., kind, date): JP 2003414688 A 20031212

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050131975	A1	EN	39	20		
JP 2005174077	A	JA	36			

Alerting Abstract US A1
NOVELTY - The shift number (S) is adjusted so that the shift number lies within the variation range of variable (X). The angle information (i) is input and converted to the variable (X) and the cyclic equation is executed in sequence from higher order terms to lower order terms of Taylor series equation to derive sine function of the angle information.
DESCRIPTION - An INDEPENDENT CLAIM is also included for function arithmetic circuit.
USE - For calculating sine function and cosine function of fast Fourier transform (FFT) in field of radio astronomy.
ADVANTAGE - Enables calculating sine function at high speed without using look-up table memory.
DESCRIPTION OF DRAWINGS - The figure shows the flowchart explaining the sine function calculation process.

12/5/2 (Item 2 from file: 347) Links
Fulltext available through: Order File History
JAPIO

04422732 **Image available**
LIGHT INTENSITY DETECTOR

Pub. No.: 06-066632 [JP 6066632 A]
Published: March 11, 1994 (19940311)
Inventor: MAEDA YUTAKA
YAMADA MANABU
NAKAMURA MASAYA
TERADA TOMOJI
NUNOGAKI NAOYA
Applicant: NIPPONDENSO CO LTD [000426] (A Japanese Company or Corporation), JP (Japan)
Application No.: 04-222885 [JP 92222885]
Filed: August 21, 1992 (19920821)
International Class: [5] G01J-001/42; G01J-001/02; G01W-001/12; H01L-031/16
JAPIO Class: 46.1 (INSTRUMENTATION -- Measurement); 42.2 (ELECTRONICS -- Solid State Components)
JAPIO Keyword: R096 (ELECTRONIC MATERIALS -- Glass Conductors)
Journal: Section: P, Section No. 1751, Vol. 18, No. 303, Pg. 122, June 09, 1994 (19940609)

ABSTRACT
PURPOSE: To obtain a light intensity detector which can detect the intensity of light accurately even when the irradiation angle of light is low.

CONSTITUTION: A sunshine intensity calculating circuit 3c in a detecting circuit 3 calculates the intensity of sunshine by applying a same voltage onto a pair of input electrodes (11, 12 or 13, 14) provided for a position detecting element 4 and then dividing the value of current flowing through an output electrode 10 according to a correction formula. The correction formula is obtained by developing a sine wave function of irradiation angle, calculated through an altitude calculating circuit 3a, into Maclaurin series and substituting an arbitrary coefficient for each term of high order function.

12/5/3 (Item 1 from file: 350) Links
Fulltext available through: Order File History
Derwent WPIX

0012789008
WPI Acc no: 2002-644534/200270
XRPX Acc No: N2002-509447
Digital method for generating local oscillation signals and its numerically controlled oscillator
Patent Assignee: HUAWEI TECH CO LTD (HUAW-N)
Inventor: GUI Y; WANG J

Patent Family (2 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
CN 1355608	A	20020626	CN 2000127506	A	20001123	200270	B
CN 1160863	C	20040804				200612	E

Priority Applications (no., kind, date): CN 2000127506 A 20001123

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
CN 1355608	A	ZH		0	

CN A
NOVELTY - The present invention has published a creating method for digital local oscillation signal and its digital control oscillator. In the phase calculation of output unit at table look-up amplitude. The phase output by truncation module unit will be disassembled into a gross phase and a fine step length. The use of number of gross phase as a table look-up address to look up the gross phase storage table to obtain the sine value and cosine value of the gross phase. The in-phase and orthogonal component of digital local oscillation signal will be output after the abtained sine value and cosine valueof the gross phase as well as the fine step length have been developed in formula calculation as per Taylor developed triangular function. The present ivnentino has a high working speed, a wide application range and can save the system resources and power consumption.

12/5/5 (Item 3 from file: 350) Links
Fulltext available through: Order File History
Derwent WPIX

0003722364
WPI Acc no: 1986-168392/198626
XRPX Acc No: N1986-125615
Elementary function calculating processor - has decoder and mask unit at inputs of memory units taken across switching to buffer registers to calculate exponential and sine functions
Patent Assignee: LENGD ELECTROTECH RES (LEEE)
Inventor: GRUSHIN V V; PUZANKOV D V; VODYAKHO A I

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
SU 1193670	A	19851123	SU 3755028	A	19840504	198626	B

Priority Applications (no., kind, date): SU 3755028 A 19840504

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
SU 1193670	A	RU	6	3	

Alerting Abstract SU A
Ability to calculate exponential and sine functions distinguishes the processor from its prototype. New circuit components are decoder (2), mask unit (3) which consists of two groups of AND-gates, six additional memory units (6-11), switches (12-14) and buffer registers (15-18).
The processor operates on the principle of using fast algorithms, identical for all four functions (arctg x and 1n(1-x) in addition to the new functions), based on fixed-point mode of the argument which consists of n bits x=0, x1, x2...xn in K segments. To calculate e to the power of x, the argument is input into register (1), and the flag of the function to be calculated - into decoder (2). The mask unit converts the argument into three segments, with the current values of segments x1, x2 representing addresses for memories (6,7) where the values of e to the power of x1 and x2 are stored. Figures fetched from the memories are applied to multiplier-divider (20) via switches (13,14) and the product is transferred to the result register. For hardware economy, e to the power of x3 is approximated by a section of Taylor series. x3 is input into adder (19) via switch (13) and register (17), and the product e to the power of x1 . e to the power of x2 from register (23) is input into multiplier-divider (20) via switch (14) and register (18), with the result appearing in register (23).
USE/ADVANTAGE - As a stand-alone function generator or as a universal or specialised computer peripheral. New circuit components add the ability to calculate two new functions -exponential and sine functions to the prototype's capabilities. Bul.43/23.11.85

12/5/6 (Item 4 from file: 350) Links
Fulltext available through: Order File History
Derwent WPIX

0002753906
WPI Acc no: 1983-794252/198342
XRPX Acc No: N1983-186748
Elementary trigonometric functions computer - calculates hyperbolic and logarithmic functions by having storage registers fed by control unit in turn feeding summator and multiplier
Patent Assignee: ZHURAVLEV YU P (ZHUR-I)
Inventor: DAVYDOV I S; KURAKIN S Z; ZHURAVLEV Y U P

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
SU 983707	A	19821225	SU 3315836	A	19810717	198342	B

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
SU 983707	A	RU	14	3	

Alerting Abstract SU A
Calculator is for use in specialised and universal computers to carry out trigonometric operations as sin x, cos x, tan x, cotan x, arcsin x, etc. It enables the computation of trigonometric, hyperbolic and logarithmic functions by the introduction of a second multiplier, operations register, operations decoder, counter, switch, three memories, a constants register, pseudo-argument register and an error register.
The calculator has a shaper for converting the comparator output potential signal into a pulse signal and passing this to a controller to clear the controller's flip-flops. The shaper comprises a single pulse shaper, and a clearing signal distributor. This delays the clearing signals for the flip-flops for the summator operating period and passes the results to a register.
Computation is based on the characteristics of the Taylor series, so that during calculations of series for different functions, identical intermediate actions are used, enabling use of the same unilateral memory for calculation of different functions . Trigonometric, circular, exponential, logarithmic, hyperbolic and inverse hyperbolic functions can be presented as an endless series. The unit economises on the use of memories for sub-programmes and constants, halving computation time and reducing loading on the arithmetic unit. Bul.47/23.12.82

FULL-TEXT PATENTS

[File 348] EUROPEAN PATENTS 1978-2007/ 200809

[File 349] PCT FULLTEXT 1979-2008/UB=20080214UT=20080207

; d s

Set	Items	Postings	Description
S1	6710	34320	S (TAYLOR OR MACLAURIN OR CYCLIC)(3N)(SERIES OR EQUATION? ? OR FORMULA? ? OR LIMIT OR POLYNOMIAL? ?)
S2	131228	787127	S SIN OR SINE OR COS OR COSINE OR CO()SINE OR (TRIG OR TRIGONOMETR? OR CIRCULAR)(2N)(FUNCTION? ? OR VALUE? ?)
S3	41440	623995	S (LOOKUP? OR LOOK???()UP)(3N)TABLE? ?
S4	1742	9547	S ("NOT" OR T OR WITHOUT)(2N)S3
S5	1	12	S S1(100N)S2(100N)S4
S6	6512	28549	S S2(3N)(OBTAIN??? OR DERIV??? OR DERIVATION OR FIND??? OR CALCULAT??? OR DETERMIN??? OR DETERMINATION)
S7	16	84	S S6(50N)S1
S8	16	84	S S7 NOT S5
S9	13	69	S S8 NOT AD=20031213:20080310/PR
S10	6	61	S S1(50N)S2(50N)FOURIER()TRANSFORM?
S11	5	53	S S10 NOT (S5 OR S8)

5/3K/1 (Item 1 from file: 348) Links
Fulltext available through: Order File History
EUROPEAN PATENTS

00381987
HIGH RESOLUTION PHASE TO SINE AMPLITUDE CONVERSION
HOCHAUFLOSUNGSUMWANDLUNG VON PHASE ZUR SINUSAMPLITUDE
CONVERSION DE HAUTE RESOLUTION DE VALEUR DE PHASE EN VALEUR D'AMPLITUDE SINUSOIDALE

Patent Assignee:

- QUALCOMM, INC.; (910890)
  10555 Sorrento Valley Road; San Diego California 92121; (US)
  (applicant designated states: AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)

Inventor:

- WEAVER, Lindsay, A., Jr.
  3419 Tony Drive; San Diego, CA 92122; (US)

- KERR, Richard, J.
  4295 Cordobes Avenue; San Diego, CA 92130; (US)

Legal Representative:

- Wagner, Karl H., Dipl.-Ing. et al (12561)
  WAGNER & GEYER Patentanwalte Gewurzmuhlstrasse 5; 80538 Munchen; (DE)

	Country	Number	Kind	Date	
Patent	EP	398910	A1	19901128	(Basic)
	EP	398910	A1	19920311	
	EP	398910	B1	19971015	
	WO	8906838		19890727	
Application	EP	89901507		19881221	
	WO	88US4622		19881221	
Priorities	US	145789		19880119	

Designated States:
AT; BE; CH; DE; FR; GB; IT; LI; LU; NL;
SE;

International Patent Class (V7): G06F-001/035; ;
NOTE: No A-document published by EPO

Type	Pub. Date	Kind	Text

Publication: English
Procedural: English
Application: English

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9710W2	1384
CLAIMS B	(German)	9710W2	1268
CLAIMS B	(French)	9710W2	1581
SPEC B	(English)	9710W2	5282
Total Word Count (Document A) 0			
Total Word Count (Document B) 9515			

Total Word Count (All Documents) 9515

Specification: ...cost.

A few techniques have been developed in an attempt to decrease quantization errors during sine conversion and increase the effective resolution. One such technique is shown in "A Digital Frequency... ...Fig. 1 reference is made to the approximation of a function by means of the Taylor series. A general conceptual diagram of the hardware is shown according to which the argument z is separated into the two smaller quantities of x and y according to the series of the Taylor series. Derwent publications T01, A8562 D/05, 11-3-81 & SU-A-736079 discloses a digital... ...increase the permanent memory capacity. For a number of digits m/16, in generating a sine function, the overall capacity of the permanent memory is 512217-digit words in the known... ...the conversion process and apparatus. An alternative is to provide circuitry for performing pure computation, without look- up tables, of the amplitude values directly from input phase values. This can be accomplished with very of accuracy. Computational processes, however, are much slower and decrease the speed of the sine conversion process. At the same time, purely computational circuits generally require additional area for the...

9/3K/3 (Item 3 from file: 348) Links
Fulltext available through: Order File History
EUROPEAN PATENTS

01198054
METHOD AND APPARATUS FOR EIGHTH-RATE RANDOM NUMBER GENERATION FOR SPEECH CODERS
VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG VON ZUFALLSZAHLEN FUR MIT 1/8 BITRATE ARBEITENDEN SPRACHKODIERER
PROCEDE ET APPAREIL PERMETTANT DE GENERER DES NOMBRES ALEATOIRES 1/8 POUR CODEURS DE LA PAROLE

Patent Assignee:

- QUALCOMM INCORPORATED; (4126330)
  5775 Morehouse Drive; San Diego, California 92121-1714; (US)
  (Proprietor designated states: all)

Inventor:

- CHANG, Chienchung
  PO Box 3874, Rancho Santa Fe,; California 92067-3874; (US)
- SHEN, Tao
  10829 Caminito Colorado; San Diego, CA 92131; (US)

Legal Representative:

- Dunlop, Hugh Christopher et al (59552)
  R G C Jenkins & Co. 26 Caxton Street; London SW1H 0RJ; (GB)

	Country	Number	Kind	Date	
Patent	EP	1159739	A1	20011205	(Basic)
	EP	1159739	B1	20051109	
	WO	2000046796		20000810	
Application	EP	2000914512		20000204	
	WO	2000US2901		20000204	
Priorities	US	248516		19990208	

Designated States:
AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;
GR; IE; IT; LI; LU; MC; NL; PT; SE;

Extended Designated States:
AL; LT; LV; MK; RO; SI;

International Patent Class (V7): G10L-019/00
NOTE: No A-document published by EPO

Type	Pub. Date	Kind	Text

Publication: English
Procedural: English
Application: English

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200545	401
CLAIMS B	(German)	200545	399
CLAIMS B	(French)	200545	466

SPEC B	(English)	200545	3527
Total Word Count (Document A) 0			
Total Word Count (Document B) 4793			
Total Word Count (All Documents) 4793			

Specification: ...distributed, and uniformly distributed between zero and one. However, the above calculations require sine and cosine computations (which requires calculation of a Taylor series expansion), logarithmic, and square root computations. Such computations necessitate relatively large processing capability and memory...

9/3K/4 (Item 4 from file: 348) Links
Fulltext available through: Order File History

01027244
VIBRATION DATA PROCESSOR AND PROCESSING METHOD
VIBRATIONSDATENPROZESSOR UND PROZESSVERFAHREN
PROCESSEUR DE DONNEES VIBRATOIRES ET PROCEDE DE TRAITEMENT

Patent Assignee:

- SKF CONDITION MONITORING, INC.; (1819130)
  4141 Ruffin Road; San Diego, CA 92123; (US)
  (Proprietor designated states: all)

Inventor:

- MANNESS, Philip, L.
  1240 E. Lexington; El Cajon, CA 92019; (US)
- BOERHOUT, Johannes, I.
  5385 Lake Murray Boulevard; La Mesa, CA 91942; (US)

Legal Representative:

- Van Malderen, Joelle et al (75971)
  Office Van Malderen, Place Reine Fabiola 6/1; 1083 Bruxelles; (BE)

	Country	Number	Kind	Date	
Patent	EP	1000350	A1	20000517	(Basic)
	EP	1000350	B1	20030402	
	WO	99006826		19990211	
Application	EP	98937227		19980729	
	WO	98US15666		19980729	
Priorities	US	54084	P	19970729	
	US	54085	P	19970729	
	US	63022	P	19971023	
	US	56155		19980406	

Designated States:
AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;
GR; IE; IT; LI; LU; MC; NL; PT; SE;

International Patent Class (V7): G01N-029/12; G01N-029/10
NOTE: No A-document published by EPO

Type	Pub. Date	Kind	Text

Publication: English
Procedural: English
Application: English

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200314	492
CLAIMS B	(German)	200314	554
CLAIMS B	(French)	200314	610
SPEC B	(English)	200314	6993
Total Word Count (Document A) 0			

Total Word Count (Document B)	8649
Total Word Count (All Documents)	8649

Specification: ...reduce round-off errors in the filter. In this embodiment, therefore, a large number of sin functions must be calculated when generating the ideal impulse response in the time domain which are preferably of 24 in a number of different ways. One convenient method uses Taylor Series expansions. Because the Taylor Series expansion for the sin function does not converge quickly for angles larger than (pi)/4...

9/3K/7 (Item 7 from file: 348) Links
Fulltext available through: Order File History
EUROPEAN PATENTS

00284932
Trigonometric function preprocessing system.
Vorbearbeitungssystem fur eine trigonometrische Funktion.
Systeme de pretraitement d'une fonction trigonometrique.

Patent Assignee:

- NEC CORPORATION; (236690)
  7-1, Shiba 5-chome Minato-ku; Tokyo; (JP)
  (applicant designated states: DE;FR;GB)

Inventor:

- Sasahara, Misayo
  NEC Corporation 33-1, Shiba 5-chome; Minato-ku Tokyo; (JP)

Legal Representative:

- Glawe, Delfs, Moll & Partner (100692)
  Patentanwalte Postfach 26 01 62; D-80058 Munchen; (DE)

	Country	Number	Kind	Date	
Patent	EP	276856	A2	19880803	(Basic)
	EP	276856	A3	19910313	
	EP	276856	B1	19950726	
Application	EP	88101245		19880128	
Priorities	JP	8719302		19870128	

Designated States:
DE; FR; GB;

International Patent Class (V7): G06F-007/548; ; Abstract Word Count: 180

Type	Pub. Date	Kind	Text

Publication: English
Procedural: English
Application: English

Available Text	Language	Update	Word Count
CLAIMS A	(English)		434
SPEC A	(English)		3244
CLAIMS B	(English)	EPAB95	502
CLAIMS B	(German)	EPAB95	510
CLAIMS B	(French)	EPAB95	554
SPEC B	(English)	EPAB95	3075
Total Word Count (Document A) 3678			
Total Word Count (Document B) 4641			
Total Word Count (All Documents) 8319			

Specification: ...relates to a trigonometric function preprocessing system. Description of related art

Heretofore, in order to obtain the value of trigonometric functions such as sin X and cos Y, there have been known a variety of algorithms such as series expansions, for example Taylor expansion or Chebyshev expansion, or so-called CORDIC. However, since it is not useful to...

Specification: ...relates to a trigonometric function preprocessing system. Description of related art

Heretofore, in order to obtain the value of trigonometric functions such as sin X and cos Y, there have been known a variety of algorithms such as series expansions, for example Taylor expansion or Chebyshev expansion, or so-called CORDIC. However, since it is not useful to...

9/3K/8 (Item 8 from file: 348) Links
Fulltext available through: Order File History
EUROPEAN PATENTS

00177868
Method and circuit for generating a time varying signal.
Verfahren und Schaltung zur Erzeugung eines zeitvariablen Signals.
Methode et circuit pour la generation d'un signal variable dans le temps.

Patent Assignee:

- ADVANCED MICRO DEVICES, INC.; (328120)
  901 Thompson Place P.O. Box 3453; Sunnyvale, CA 94088; (US)
  (applicant designated states: AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)

Inventor:

- Mishergi, Ayoub Hadi
  1114 Kelez Drive; San Jose California 95120; (US)
- Apfel, Russell Jay
  One Bayview Avenue Apartment 6; Los Gatos California 95030; (US)
- Lange, Arthur Francis
  1543 Klamath Drive; Sunnyvale California 94087; (US)

Legal Representative:

- Wright, Hugh Ronald et al (38052)
  Brookes & Martin High Holborn House 52/54 High Holborn; London WC1V 6SE; (GB)

	Country	Number	Kind	Date	
Patent	EP	158538	A2	19851016	(Basic)
	EP	158538	A3	19880727	
	EP	158538	B1	19920722	
Application	EP	85302484		19850409	
Priorities	US	598649		19840410	

Designated States:
AT; BE; CH; DE; FR; GB; IT; LI; LU; NL;
SE;

International Patent Class (V7): H04M-001/50; G06F-001/02; Abstract Word Count: 119

Type	Pub. Date	Kind	Text

Publication: English
Procedural: English
Application: English

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	2336
CLAIMS B	(German)	EPBBF1	2128
CLAIMS B	(French)	EPBBF1	2597
SPEC B	(English)	EPBBF1	5781
Total Word Count (Document A) 0			
Total Word Count (Document B) 12842			
Total Word Count (All Documents) 12842			

Specification: ...can be achieved, it comes at the cost of increased processor overhead time.

In the Maclaurin series expansion method of generating digital DTMF signals, extensive use of the computational power of a... ...2)/2! - x(sup 4)/4! - x(sup 6)/6! + . . .

Alternatively, the value can be calculated from an equivalent sine series. The number of terms used depends upon the time and computational power available and...

9/3K/12 (Item 4 from file: 349) Links
Fulltext available through: Order File History
PCT FULLTEXT

00540016
CURRENT PROFILE SHAPING TO REDUCE DISC DRIVE SEEK TIME VARIATION AND ACOUSTIC NOISE GENERATION
FORMATION DE PROFIL COURANT VISANT A REDUIRE LES VARIATIONS DU TEMPS DE RECHERCHE DE LECTEUR DE DISQUE ET LE BRUIT ACOUSTIQUE GENERE

Patent Applicant/Patent Assignee:

- SEAGATE TECHNOLOGY INC;
  ; ;

	Country	Number	Kind	Date
Patent	WO	200003389	A1	20000120
Application	WO	99US15864		19990713
Priorities	US	9892680		19980713

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Publication Language: English
Filing Language:
Fulltext word count: 7692

Detailed Description:

...These values are appropriately scaled for the seek length and can be provided from a sine table, or calculated using numerical methods such as a truncated Taylor series expansion. It will be noted that this current waveform will preferably operate to reduce excitation...

9/3K/13 (Item 5 from file: 349) Links
Fulltext available through: Order File History
PCT FULLTEXT

00475474
VIBRATION DATA PROCESSOR AND PROCESSING METHOD
PROCESSEUR DE DONNEES VIBRATOIRES ET PROCEDE DE TRAITEMENT

Patent Applicant/Patent Assignee:

- SKF CONDITION MONITORING INC;
  ; ;

	Country	Number	Kind	Date
Patent	WO	9906826	A1	19990211
Application	WO	98US15666		19980729
Priorities	US	9754084		19970729
	US	9754085		19970729
	US	9763022		19971023
	US	9856155		19980406

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Publication Language: English
Filing Language:
Fulltext word count: 8501

Detailed Description:

...reduce round-off errors in the filter . In this embodiment, therefore, a large number of sin functions must be calculated when generating the ideal impulse response in the time domain which are preferably of 24...
...resolution. This may be done in a number of different ways. One convenient method uses Taylor Series expansions.

Because the Taylor Series expansion for the sin function does not converge quickly for angles larger than B/4...

11/3K/2 (Item 2 from file: 349) Links
Fulltext available through: Order File History
PCT FULLTEXT

00803392
SYSTEMS AND METHODS FOR QUANTIFYING NONLINEARITIES IN INTERFEROMETRY SYSTEMS
SYSTEMES ET PROCEDES DE QUANTIFICATION DES NON LINEARITES DANS DES SYSTEMES INTERFEROMETRIQUES

Patent Applicant/Patent Assignee:

- ZYGO CORPORATION; 21 Laurel Brook Road, Midlefield, CT 06455-0448
  US; US(Residence); US(Nationality)
  (For all designated states except: US)
- HILL Henry A; 340 South Avenida De Palmas, Tucson, AZ 85716
  US; US(Residence); US(Nationality)
  (Designated only for: US)

Patent Applicant/Inventor:

- HILL Henry A
  340 South Avenida De Palmas, Tucson, AZ 85716; US; US(Residence); US(Nationality); (Designated only for: US)

Legal Representative:

- PRAHL Eric L(agent)
  Fish & Richardson, P.C., 225 Franklin Street, Boston, MA 02110-2804; US;

	Country	Number	Kind	Date
Patent	WO	200136901	A2-A3	20010525
Application	WO	2000US31544		20001117
Priorities	US	99166639		19991119
	US	2000557338		20000424
	US	2000583368		20000531

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

[EP] AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;
GR; IE; IT; LU; MC; NL; PT; SE; TR;

Publication Language: English
Filing Language: English
Fulltext word count: 41049

Detailed Description:

...cosc 4- C04UO) 2t + Cou" + P(P2 P+@02+) and
@21U'U%P@p
sinC + sin UCO 21 + Co,',, + P@D2 P +@D +as evident from Eq. (2)
2,u,z4',P,P 2)
The Fourier transform of a sinusoidal function sino is
related to the Fourier transform of cosp as
61

F(sin P) = Fjc+ - (7c/2)]) (8)
where ...time and representive of arguments
of sinusoidal factors in Eq. (2). For evaluation of the
Fourier transform of coso, factor cosp is written as
Cos P = COS[P(T) + O(T)(t - T)] cos[P(t) - P(T) - '(T)(t - T)]
P
(9)
P
- si n [P(T) + (T)(t - T)] sin [P(t) - P(T) -(T)(t - T)]
and factors cos[P(1)-P(T)-O(T)(t-T)] and sin [P(t)-P(T)-O(T)(t-T)j in
Eq. (9) are expanded in Taylor's series about t= T where
OM = 1dP1dt1t=T. The Taylor's series expansions including
terms up through fifth order in (1-T) may be expressed
according to the formulae
COS[P(t) - P(T) - O(T)(t - T)l 1 - 3[0(T)]' T)4...

11/3K/3 (Item 3 from file: 349) Links
Fulltext available through: Order File History
PCT FULLTEXT

00525115
VERSATILE VIDEO TRANSFORMATION DEVICE
DISPOSITIF DE TRANSFORMATION VIDEO A USAGES MULTIPLES

Patent Applicant/Patent Assignee:

- STAPLETON John J;
  ; ;

	Country	Number	Kind	Date
Patent	WO	9956467	A1	19991104
Application	WO	99US9136		19990428
Priorities	US	9869438		19980429

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Publication Language: English
Filing Language:
Fulltext word count: 8453

Detailed Description:

...manner
because of the Nyquist sampling limit since RAM was so inexpensive.

Just as the Taylor Series representation in the time domain of the video signal by summation of its time derivatives... ...SHEE T (R ULE 2 6)
basis of video compression in terms of DCT Discrete Cosine Transform that is the real part of the Fourier Transform. Accordingly, the video transformation may be mechanized in either the time domain as in all...

11/3K/4 (Item 4 from file: 349) Links
Fulltext available through: Order File History
PCT FULLTEXT

00500288
METHOD AND APPARATUS FOR TRAINING OF SENSORY AND PERCEPTUAL SYSTEMS IN LLI SUBJECTS
PROCEDE ET APPAREIL D'ENTRAINEMENT DES SYSTEMES SENSORIEL ET PERCEPTIF CHEZ DES SUJETS PRESENTANT DES TROUBLES D'APPRENTISSAGE LINGUISTIQUE (LLI)

Patent Applicant/Patent Assignee:

- SCIENTIFIC LEARNING CORPORATION;
  ; ;

	Country	Number	Kind	Date
Patent	WO	9931640	A1	19990624
Application	WO	98US26528		19981214
Priorities	US	97982189		19971217

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Publication Language: English
Filing Language:
Fulltext word count: 17796

Detailed Description:

...t +(p,, (con, t)]
where (p,(cj,,,t) is the phase modulation of the carrier cos[o),(t)]. Flow then proceeds to block 3108.

At block 3 108 the amplitude and... ...limited.

Therefore, a practical approximation forf,(t) is.

fn (t) =-I F(O)"' t) I Cos co,)/ + f@O%(O)n 9t)
0
where (p* is the instantaneous frequency. Flow then... ...block 31 10 (o* can be computed from the unwrapped-phase of the short-term Fourier transform. A 1 5 time-scaied signal can then be synthesized as follows by interpolating the short-term Fourier transform magnitude and the unwrapped phase to the new-time scale as shown below.

t
f(fit) E'6N I F(o), flt) I cos 'O C011t + f(P* " (con @ t)
n=0
0
where 6 is the scaling factor... ...is greater than one for time-scale expansion. An efficient method to compute the above equation makes use of cyclic rotation and the FFT algorithm along with an overiap-add procedure to compute the short-time discrete Fourier transform. Appropriate choice of the analysis filters h(i) and interpolating filters (for interpolation of the short-term Fourier transform to the new time-scale) are important to the algorithm. In one embodiment, linear interpolation based on the magnitude and phase of the short-time Fourier transform was used. The analysis filter h(t) was chosen to be a Kaiser window multiplied by an ideal impulse response as shown.

h(n') = N sin(,n kaiser(n,6.8)
an N
where
33
SUBSTITUTE SHEET (RULE 25)
where 10...

11/3K/5 (Item 5 from file: 349) Links
Fulltext available through: Order File History
PCT FULLTEXT

00487314
SIGNAL PROCESSOR WITH LOCAL SIGNAL BEHAVIOR
UNITE DE TRAITEMENT DE SIGNAUX AVEC CARACTERISATION DU COMPORTEMENT DE SIGNAL LOCAL

Patent Applicant/Patent Assignee:

- IGNJATOVIC Aleksandar;
  ; ;

	Country	Number	Kind	Date
Patent	WO	9918666	A1	19990415
Application	WO	98US20651		19981002
Priorities	US	9761109		19971003
	US	9887006		19980528
	US	98144360		19980831

Designated States: (All protection types applied unless otherwise stated - for applications 2004+)

Publication Language: English
Filing Language:
Fulltext word count: 27431

Detailed Description:

...other hand, operations based on the global behavior of the signal, e.g. taking the Fourier transform, or filtering in the frequency domain, can be performed very accurately using standard, global methods based on Fourier analysis and representation of the signal using trigonometric functions.
II. Taylor's Theorem
Band limited signals have several important characteristics. They are infinitely differentiable...e.g

f(")(t), f(2)(t), etc.) Also, it can be proven that the Taylor series of a band-limited signal converges everywhere to the value of the signal:
f(t...

NPL ABSTRACTS

[File 2] INSPEC 1898-2008/Feb W2

[File 6] NTIS 1964-2008/Mar W3

[File 8] Ei Compendex(R) 1884-2008/Feb W3

[File 23] CSA Technology Research Database 1963-2008/Jan

[File 34] SciSearch(R) Cited Ref Sci 1990-2008/Mar W2

[File 35] Dissertation Abs Online 1861-2008/Nov

[File 65] Inside Conferences 1993-2008/Mar 06

[File 95] TEME-Technology & Management 1989-2008/Feb W3

[File 99] Wilson Appl. Sci & Tech Abs 1983-2008/Jan

[File 144] Pascal 1973-2008/Mar W1

[File 256] TecInfoSource 82-2008/Apr

[File 434] SciSearch(R) Cited Ref Sci 1974-1989/Dec

; d s

Set	Items	Postings	Description
S1	30258	90912	S (TAYLOR OR MACLAURIN OR CYCLIC)(3N)(SERIES OR EQUATION? ? OR FORMULA? ? OR LIMIT OR POLYNOMIAL? ?)
S2	266248	448302	S SIN OR SINE OR COS OR COSINE OR CO()SINE OR (TRIG OR TRIGONOMETR? OR CIRCULAR)(2N)(FUNCTION? ? OR VALUE? ?)
S3	24891	107494	S (LOOKUP? OR LOOK???()UP)(3N)TABLE? ?
S4	357	1286	S ("NOT" OR T OR WITHOUT)(2N)S3
S5	1	19	S S1 AND S2 AND S4
S6	13611	32978	S S2(3N)(APPROXIMAT? OR OBTAIN??? OR DERIV??? OR DERIVATION OR FIND??? OR CALCULAT??? OR COMPUT? OR DETERMIN?)
S7	70	447	S S6 AND S1
S8	1	10	S S7 AND FOURIER()TRANSFORM?
S9	13	102	S S1 AND S2 AND FOURIER()TRANSFORM?
S10	10	74	RD (unique items)
S11	10	74	S S10 NOT S5
S12	8	55	S S11 NOT PY=2004:2008

5/5/1 (Item 1 from file: 2) Links
INSPEC

05602590 INSPEC Abstract Number: B9403-1265B-126, C9403-5120-024
Title: Approximating the sine function with combinational logic
Author Schwarz, E.M.; Flynn, M.J.
Author Affiliation: Comput. Sci. Lab., Stanford Univ., CA, USA
Conference Title: Conference Record of The Twenty-Sixth Asilomar Conference on Signals, Systems and Computers (Cat. No.92CH3245-8) p. 386-90 vol.1
Editor(s): Singh, A.
Publisher: IEEE Comput. Soc. Press , Los Alamitos, CA, USA
Publication Date: 1992 Country of Publication: USA 2 vol. (xviii+xix+1156) pp.
ISBN: 0 8186 3160 0
U.S. Copyright Clearance Center Code: 1058-6393/92/$03.00
Conference Sponsor: IEEE
Conference Date: 26-28 Oct. 1992 Conference Location: Pacific Grove, CA, USA

Language: English Document Type: Conference Paper (PA)
Treatment: Practical (P)
Abstract: An algorithm which creates an implementation of trigonometric functions in combinational logic is presented. The algorithm provides an approximation of a trigonometric function with a latency less than a 16-b by 16-b multiplication. Specifically, the derivation of the sine function for a fixed-point operand is shown. Traditionally, the sine function has been approximated by lookup tables, CORDIC methods, Taylor series, and Chebyshev polynomials. The algorithm presented is shown to have faster implementations than Taylor series and Chebyshev polynomials for a similar precision and does not require any lookup tables. (18 Refs)
Subfile: B C
Descriptors: combinatorial circuits; digital arithmetic; integrated logic circuits
Identifiers: sine function; combinational logic; trigonometric functions; latency; fixed-point operand
Class Codes: B1265B (Logic circuits); C5120 (Logic and switching circuits); C5230 (Digital arithmetic methods)

12/5/2 (Item 2 from file: 8) Links
Ei Compendex(R)

09116472 E.I. No: EIP02357062832
Title: Representation and measurement of nonlinearities in stimulus signals

Author: Martins, Raul Carneiro; Serra, Antonio Cruz
Corporate Source: Instituto de Telecom./DEEC IST, Univ. Tecnica de Lisboa SETME, Lisboa, Portugal
Conference Title: 19th IEEE Instrumentation and Measurement Technology Conference
Conference Location: Anchorage, AK, United States Conference Date: 20020521-20020523
Sponsor: IEEE
E.I. Conference No.: 59419
Source: Conference Record - IEEE Instrumentation and Measurement Technology Conference v 1 2002. p 437-443 (IEEE cat n 00ch37276)
Publication Year: 2002
CODEN: CRIIE7
Language: English
Document Type: CA; (Conference Article) Treatment: T; (Theoretical)
Journal Announcement: 0209W1
Abstract: In this paper we will present a simple and cost effective yet accurate setup for measuring the amplitude distribution of a signal and its probability density function (pdf). From these it will be shown how to measure linear and nonlinear errors through a third order Taylor series representation of the distorted signal. We will also show how this representation of the nonlinear behavior of the signal could be used as an horizontal metric for adequacy of the amplitude distribution in the histogram method. Finally, experimental results concerning the characterization of two sine wave generators will be presented and compared with measurements made with a spectrum analyzer. 9 Refs.
Descriptors: *Signal noise measurement; Probability density function; Error analysis; Distortion (waves); Spectrum analysis; Fast Fourier transforms; Time domain analysis
Identifiers: Stimulus signal; Amplitude distribution; Distorted signal; Histogram method ; Sine wave generators
Classification Codes:
942.2 (Electric Variables Measurements); 922.1 (Probability Theory); 921.6 (Numerical Methods); 716.1 (Information & Communication Theory) ; 921.3 (Mathematical Transformations)
942 (Electric & Electronic Measuring Instruments); 922 (Statistical Methods); 921 (Applied Mathematics); 716 (Electronic Equipment, Radar, Radio & Television)
94 (INSTRUMENTS & MEASUREMENT); 92 (ENGINEERING MATHEMATICS); 71 (ELECTRONICS & COMMUNICATION ENGINEERING)

12/5/3 (Item 1 from file: 23) Links
CSA Technology Research Database

0005365687 IP Accession No: A97-32535
Uniformly accurate compact difference schemes

Tang, Lei; Baeder, James D Maryland, Univ., College Park [Tang
Publication Date: 1997

Conference:
AIAA, Computational Fluid Dynamics Conference, 13th, Snowmass Village, CO , UNITED STATES , 29 June-2 July 1997

Document Type: Conference
Record Type: Abstract
Language: ENGLISH
Report No: AIAA Paper 97-2093
No. Of Refs.: 14
File Segment: Aerospace & High Technology

Abstract:
The mechanism behind several conflicts between the order of accuracy and the spectral resolution property of a high order finite difference scheme is given. Based on this analysis, a Hermite power-trigonometric polynomial-mixed interpolation is used to construct a high order compact difference scheme with a better representation of higher frequency solutions. Compared with other optimized difference schemes, this approach is more physical and simpler. One simple example illustrates the benefits of this type of uniformly accurate compact schemes. (Author)

Descriptors: *Finite difference theory; *Spectral resolution; *Computational grids; *Hermitian polynomial; *Computational fluid dynamics; *Truncation errors; Trigonometric functions; Taylor series; Fourier transformation
Subj Catg: 64, NUMERICAL ANALYSIS